

Application Number 10/755,143

Amendment responsive to Office Action mailed November 7, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Original): A system for reading and writing information to magnetic media comprising:

an array of write heads arranged in a two-dimensional matrix, wherein each of the write heads defines a write channel for the system; and

an array of magnetoresistive (MR) heads, wherein each of the MR heads defines a read channel for the system.

Claim 2 (Original): The system of claim 1, wherein the array of MR heads comprises a linear array of MR heads and the array of write heads comprise a planar array of write heads.

Claim 3 (Original): The system of claim 1, wherein each of the write heads is substantially aligned with a corresponding one of the read heads such that each of the write channels substantially aligns with a corresponding one of the read channels.

Claim 4 (Original): The system of claim 3, wherein the write channels are separated by less than 100 microns and the read channels are separated by less than 100 microns.

Claim 5 (Original): The system of claim 4, wherein the write channels are separated by less than 50 microns and the read channels are separated by less than 50 microns.

Claim 6 (Original): The system of claim 5, wherein the write channels are separated by less than 10 microns and the read channels are separated by less than 10 microns.

Claim 7 (Original): The system of claim 1, wherein the MR heads comprise giant magnetoresistive (GMR) heads.

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Claim 8 (Original): The system of claim 1, wherein a number of write heads in the array of write heads is the same as a number of MR heads in the array of read heads.

Claim 9 (Original): The system of claim 1, wherein each of the write heads and each of the MR heads are independently controllable.

Claim 10 (Original): The system of claim 1, further comprising a write head controller for each of the write heads and an MR head controller for each of the MR heads.

Claim 11 (Original): The system of claim 1, wherein each write head includes an excitation coil which coils in a direction perpendicular to a plane defined by the planar array.

Claim 12 (Currently amended): The system of claim 1, further comprising an additional wherein at least one of the write heads also head that functions as a an inductive-read element that reads pre-written servo marks.

Claims 13-20 (Canceled).

21. (New): The system of claim 1, wherein the magnetic media comprises magnetic tape and wherein the array of write heads comprises a first array of write heads that define write channels for the system in a first tape direction, the system further comprising:

a second array of write heads arranged in another two-dimensional matrix, wherein the write heads in the second array of write heads define write channels for the system in a second tape direction,

wherein the array of MR heads are positioned between the first and second arrays of write heads, wherein the MR heads define read channels for the system in both the first and second tape directions.

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22. (New): The system of claim 21, wherein the write heads of the first array of write heads substantially align with the read heads such that the write channels of the first array of write heads substantially align with the read channels, and wherein each of the write heads of the second array of write heads substantially align with the read heads such that the write channels of the second array of write heads substantially align with the read channels.